Vincent, L. S. 1987. B. J. Kaston, American Araneologist 1906-1985: a biography and bibliography. J. Arachnol., 14:283-291.

## BIOGRAPHY

# B. J. KASTON, AMERICAN ARANEOLOGIST 1906-1985: A BIOGRAPHY AND BIBLIOGRAPHY

## Leonard S. Vincent

# Division of Biological Sciences Fullerton College Fullerton, California 92634

When B. J. Kaston did not attend the June, 1985, American Arachnological Society meeting in Los Angeles, many of us who knew him well suspected his health had worsened. A small delegation was sent to his home in nearby Santa Ana to present him with an award for his special contribution to arachnology and a huge home-made get-well card signed by the meeting's attendants. B. J. died two months later on August 24, 1985, in, as he would put it, his 80th year of life.

In preparing this biography, I expected to find evidence of B. J.'s dedication to araneology. To be sure, testimonials to his enormous contribution were abundant. What was surprising was to find that his contributions were done in his spare time—nights and weekends. B. J.'s academic appointments were teaching positions, a situation which might have caused a less disciplined and determined person to become a frustrated researcher and a mediocre teacher. B. J. Kaston, however, turned a series of difficult situations into positive ones, excelling as both teacher and researcher.

B. J. (Benjamin Julian) was born July 2, 1906, in New York City. His early home life was less than ideal. His mother died when he was six and he disliked his father, a real estate salesman. In later years, B. J. seldom wrote or spoke of his parents or his two sisters and brother.

Unlike some other luminaries in arachnology, B. J. was not given to the study of spiders early in his life. However, his high regard for intellectual achievement was established early in his academic career. B. J. graduated June 24, 1926, from the esteemed De Witt Clinton High School in New York City, scoring in the 99th percentile in all of the comprehensive Regent's Exams. On the other hand, he kept a low social profile in high school; he did not join science clubs or participate in other high school activities of record.

B. J. entered Ohio State University as a zoology major in 1926 and remained one year before transferring to North Carolina State University at Raleigh. At NCSU, B. J., also known at the time as "Doc", earned a B. S. in zoology by taking an extensive range of zoology courses with a minor in botany on top of 23 hours of chemistry. In spite of rigorous course loads, he managed to earn membership in the Pine Burr Society (a local scholarship group), Phi Kappa Phi

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Fig. 1.-B. J. Kaston 1941.

Fig. 2.-B. J. Kaston 1978 (courtesy H. Levi).

(a national honor fraternity), and the Leazar Literary Society (a debate and oratory organization). He was also a member of the wrestling squad and chemistry club. His interest in photography, recognized even then, was noted in the 1930 NCSU year book *Agromeck*: "He was a familiar figure around the campus chasing bugs and snakes. Of course, wherever he went he took his trusty photographic outfit . . ." This would aptly describe B. J. in his later years as well. To support his studies at NCSU during the depression years, he worked as a lifeguard and as a teaching assistant in zoology and botany.

At NCSU, B. J. met Elizabeth Haban who later became his wife, collecting partner, rearer of spiders collected, and illustrator for his Ph.D. dissertation, for *How To Know The Spiders*, and *Spiders of Connecticut*. Elizabeth persuaded him, many years later, to accept the invitation of H. E. Jaques, the individual in charge of the *Pictured-Key Nature Series*, to write *How to Know the Spiders*. B. J. graduated from NCSU in June of 1930 and entered the Ph.D. program in zoology at Yale in September of that year. There he met Alexander Petrunkevitch, who suggested that B. J. study spiders. Previous to this, B. J. had not expressed more than a casual interest in spiders. Four years later B. J. finished his dissertation: "A Study of The Senses and Sense Organs Involved in the Courtship of Some Vagabond Spiders."

Much to his disappointment, B. J.'s first full-time job after graduating from Yale in June of 1934 did not involve teaching. He obtained a position at the Connecticut Experiment Station where he worked on elm beetles and Dutch Elm Disease for the next four years. His tendency to work nights and weekends on spiders became evident and continued throughout his long professional career.

While at the Experiment Station, he published 15 papers on spiders. He also collected many of the spiders that were used in his major monograph, *Spiders of Connecticut*, a project he conceived of doing as early as 1935. These spiders, as well as the bulk of the rest of his collection, he donated to the Smithsonian in 1984.

In 1938, he obtained his first teaching appointment in Gainesville, Georgia, at Brenau College, a small, four-year liberal arts college for women, where he had a heavy teaching load. His spare time included many trips to the American Museum of Natural History to study their spider collection (a practice he retained for years) and to visit his good friend Willis Gertsch. He often embarked on short combined collecting and sightseeing tours which always seemed to include a visit with fellow araneologist H. K. Wallace in Florida. He also continued writing long, detailed letters to colleagues requesting or giving advice and information on spiders or the latest news on other "spiderologists", a habit maintained until his death. Much of his non-teaching time in his early years at Brenau must have been spent working on *Spiders of Connecticut*, which he finished in 1941. The seven year delay (to 1948) in publication was a constant source of frustration for him.

B. J.'s tenure at Brenau was interrupted by a one-year sojourn (1943-1944) in the army, identifying mosquitoes that were sent in from various army bases in the southern U.S. as part of a malaria control project. Partial deafness in one ear precluded him from other responsibilites. The president of Brenau managed to communicate to the authorities that B. J.'s capabilities were more valuable in the classroom, and B. J. was released from further service.

Judging from the comments of several of his former Brenau students, B. J. was considered a great teacher. One wrote that he had "tremendous energies—and managed to impart an excitement in all the courses he taught" and that "he stimulated questions and thought and encouraged us whenever he saw a spark of interest." Others commented that he "made learning a joy," and was a "teacher one would never forget."

After a summer research fellowship at Harvard in 1945, B. J. joined the faculty of the Zoology Department of Syracuse University in New York. While there he set to the task of updating the *Spiders of Connecticut* whose publication was still delayed due to the war. B. J. remained at Syracuse University only one year before accepting an offer from the Teachers College of Connecticut (now the Central Connecticut State University). This offered close proximity to the Yale libraries and the Connecticut Agricultural Experiment Station. Unfortunately, there was no graduate program in biology; consequently, he recommended to those students who expressed an interest in doing graduate studies on spider biology that they work with H. K. Wallace at the University of Florida. John F. Anderson was the only undergraduate student of B. J.'s to eventually complete a dissertation on spiders and to continue working on them professionally. Many others gained an appreciation for spiders and continued studying them as an avocation. Some students benefited from funds which B. J. donated anonymously for academic scholarships.

His major spare time project during his beginning years at Teachers College was the preparation of what he referred to as his "little book", *How to Know the Spiders*. Since the book was limited in size by the publisher, B. J. felt that it would not be able to contain much for the specialist but would better serve the beginner in the field.

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At this time, B. J. was also in demand for his popular talks on nature photography. His skills as a photographer had earned him a Five Star rating in nature slides from the Photographic Society of America and a medal at the Rochester International Exhibit. B. J. eventually donated most (several thousand) of his slides to the American Museum of Natural History.

B. J. remained at Teachers College until his retirement in July of 1963. His breadth of teaching experience was unusual: he taught every one of the 14 courses that Teachers College and Brenau College offered in biology! In spite of his teaching schedule, he still found time to advise and encourage students on matters relating to graduate studies. A laboratory at Central Connecticut State University will be given B. J.'s name in remembrance of his contributions.

In 1964, B. J. accepted a lectureship at San Diego State College and also remarried. His new wife, Barbara (Szymanski), a former student of B. J.'s at Teachers College and now a practicing psychiatrist in California, did graduate work in cytogenetics at SDSC. Barbara worked with black widow chromosomes.

In 1967, B. J. received a three-year NIH grant to study black widows. In 1969, he began the preparation of his revised edition of *How to Know the Spiders*, which became available in 1972. He was president of the Arachnologists of the Southwest for 1970 and 1971.

Thus, B. J. remained in high gear at San Diego State College for nine years until his second retirement in 1973. In that year, he wrote Wallace of his planned retirement, noting that he was "the last of our crowd to do so," the crowd being Gertsch, Lowrie, Muma, and Wallace. In the same letter he mentioned that he would be taking on "some" of the editorial work of the newly formed Journal of Arachnology. B. J. served on the editorial board for the next 12 years. He was appointed (1980) to Associate Editor, a position he held until his death. Also, in 1973 he attended the seminal meeting of the American Arachnological Society in Silver City, New Mexico. B. J. participated in the founding of the A.A.S. and later, 1978, was elected for a three-year term to the three-member Board of Directors.

To gain a fuller appreciation of B. J. and the magnitude of his contribution to araneology, one needs to go beyond a mere chronology of his life. An analysis of his publications and correspondence with colleagues reveals his independent nature, his perfectionism, his descriptive rather than experimental approach to research, his dedication and determination, his forthrightness and liberal use of a barbed pen, and his breadth of knowledge and interests regarding araneology and araneologists.

B. J. published 86 papers; in all but six he was the sole author. Of the six, he was the senior author of five. His collaborative papers dealt mostly with his elm beetle work. Surely part of his lone araneology was due to his being isolated in Georgia for many years and to the circumstance of most of his employment: 100 % teaching positions in colleges without graduate programs.

B. J.'s publications were legend for their accuracy and detail, both in style and content. Herb Levi (pers. comm.) wrote, "I still cannot see how any man can produce a work (*Spiders of Connecticut*, 1948) with so few misprints and so few mistakes." Martin Muma, as well as B. J. himself, referred to Kaston as an "old maid" on terminology and detail.

The publications on spiders of B. J. Kaston began in 1935 and continued for fifty years. His early major papers were on pheromones and courtship behavior.

The many shorter works were on parasites of spiders, black widow distributions, and nomenclatural notes. Taxonomic papers first appeared in 1938. Shortly after his monumental *Spiders of Connecticut* (1948), the first of his many reviews appeared. Post-1960 papers covered various morphological topics such as intersexes, ocular anomalies, a review of little known aspects of spider behavior, an interpretation of the evolution of webs, and a descriptive monograph on the comparative biology of black widows. There were more papers on nomenclature, many more reviews, and, of course, two more editions of *How to Know the Spiders*, a large supplement to *Spiders of Connecticut*, and a revised *Spiders of Connecticut*. The black widow on the cover of this edition of *Spiders of Connecticut* reflected B. J.'s interest in the *Latrodectus* group.

B. J. continued writing until shortly before his death, since he could do this in relative comfort. Other activities associated with his study of spiders were gradually eliminated as various ailments worsened in his seventies. His poor eyesight, angina, and arthritic back restricted him to sedentary activities such as microscope work and editorial tasks. Eventually, peering into his scope became too painful. He still was able to critique the spider works of others and he determinedly continued to do so.

As a reviewer, B. J. was no less a perfectionist. Levi wrote, "B. J. was always the first one to point out a missing comma or some other minor mistake overlooked by the editor. I have always felt that I became more watchful lest B. J. discover any error or misprint or missing comma in one of my papers."

In manuscript reviews B. J. wanted to maintain high standards of writing, precision of illustration, and thorough reporting of literature. It was the nonaraneologists and publishers who often received his sharpest, and often vehement, attacks. For example, in closing his 1950 book review of Duncan's *Webs In The Wind*, B. J. wrote, "Why the editor and the publisher saw fit to inflict such a volume on an unsuspecting public is incomprehensible. They would aid the humanizing of science most by suppressing the sale of such a mass of misinformation...."

Clearly, B. J. was forthright in his reviews, no matter who the writer. In his 1950 review of his friend Gertsch's *American Spiders*, B. J. used many superlatives and closed with "... the outstanding volume on these much maligned but extremely interesting animals." However, B. J. pointed out, "It is regrettable that the morphology of the reproductive organs has not been described sufficiently...."

B. J.'s own publications are but a part of his overall contributions to araneology—a part, however, that can be quantified. The first edition of his "little book," *How to Know the Spiders*, sold over 16,000 copies. The second edition, 20 years later, sold close to 7,000 copies, and the last edition, 1978, has so far sold close to 7,000 copies. The 1948 edition of *Spiders of Connecticut* is the most widely used bulletin of the series (there are over 110), especially out of state. Indeed, it was listed 66 times in Science Citation Index from 1965 to 1984.

B. J.'s crusade for perfection and thoroughness was just as evident throughout his teaching career. His teaching assistants and students from the late thirties and early forties found him to be a "born teacher." Students from the 1950's and 1960's at Teachers College, who went on to get higher degrees in a biological science, wrote the following: B. J. "was the epitome of the professor's professor. Always known for his candor ... Respected by those who knew and sensed his dedication to the rigors of study and feared by those who were inept ... [he] instilled a deep and abiding love for the scientific method" and "in class, he was a relentless pursuer ... if you didn't prepare or think, God help you; he could and would be merciless." Lastly and perhaps most insightful: "He was similar to other men given to strong beliefs, he was sometimes wrong, but never in doubt."

It is within B. J.'s prolific correspondence with colleagues that one can best sense his utter dedication to araneology. Reading his long, detailed letters to Exline-Frizzell, Gertsch, Muma, and Wallace, letters that covered close to half a century, one can observe certain aspects of the history of our discipline unfold, and its contributors come and go or come and stay. B. J.'s letters—he would sometimes write two or three a month to each of the above—usually consisted of a brief greeting and inquiry into family matters before they would dive into some aspect of araneology. Typically, he was either requesting information or, more often, providing information.

Simple questions put to B. J. often received detailed answers. In a 1951 letter, Harriet Exline-Frizzell referring to a statement in Spiders of Connecticut where B. J. indicated his preference for the use of Agelenidae over Agalenidae, asked B. J. if he was still of the same opinion considering that "the new rules call for correction of caligraphy or orthography in deriving Latin terms." This triggered over a 500 word reply by B. J., part of which read: " My opinion . . . still stands as on page 278. I try to follow the rules carefully, and as stated in the footnote, we have only Thorell's opinion that there was a mistake in the translation from the Greek. Actually, Walckenaer did not give any derivation, and on pg 51 in Tabl. Aran. (of which I have a personal copy) appears this line 'G. Agelene (Agelena) and in a footnote is given the species naevia. That it is not a typographic error can be shown by the fact that the spelling is the same in the running head of the page, and in the index. See opinion 34 of the Rules, and read what I say on page 52 of my monograph. See also p. 132 in Thorell's "European Spiders". Gaining momentum, B. J. continued "I am not adverse to changing the orthography when it can be shown that there is justification, e.g., Chiracanthium, p. 369, since this is covered by the transcription matter in the Rules. But I certainly am not going to change just because Pete, by fiat, issues an edict!" This led to a further exposé and criticism of Petrunkevitch's preference of Aranei over Araneae, and B. J.'s strong endorsement of Araneae over Araneida.

Over the years, B. J.'s correspondence, in a large sense, served as unofficial newsletters or a clearing house of sorts, since he often had knowledge of who was doing what and where they were last seen. In these letters, he often expressed his concern about the lack of jobs for araneologists, lamented the loss of several of our colleagues to other professions, and referred to those who remained biologists but never worked on spiders beyond their dissertations as "still-born" Ph.Ds. All this with genuine sincerity.

B. J.'s outspoken participation in meetings of the A.A.S., his careful research and reviews, his consummate editorial expertise—B. J., always the scientist and teacher, will be missed. There will be no fourth edition of B. J.'s "little book".

I thank the many friends, students, and associates of B. J.'s who contributed to this biography. I owe special gratitude to: J. F. Anderson, T. Cohn, A. Fuller, W. Gertsch, E. (Haban) Howard, R. Judd, B. Kaston, H. Levi, W. Peck, M. Muma, J. Rovner, E. Schlinger, B. Vincent, and H. K. Wallace.

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Invited paper.